ABSTRACT

RADIO COMMUNICATION SYSTEM

A radio communication system comprising a primary station (100) and a secondary station (110) operates according to two (or more) two-way communication modes. An uplink (124) and/or a downlink (122) communication channel is present for the first mode, but only one of an uplink and a downlink (126) channel is present for the second mode. Modifications to the protocols of the first and second modes enable the traffic for an absent communication channel of one mode to be carried by the corresponding channel of the other mode.

Such a system is particularly suitable for scenarios where there is significant asymmetry between traffic or data rates in the uplink (124) and downlink (122,126) communication channels.

In one embodiment the first mode is UMTS and the second mode is HIPERLAN/2, with both channels (122,124) present for the first mode and only a downlink channel (126) present for the second mode. The secondary station (110) therefore only requires a HIPERLAN/2 receiver (106), giving rise to a significant cost saving by the omission of a HIPERLAN/2 transmitter.

(Figure 1)